STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/910,354A
Source: FTW16
Date Processed by STIC: 3-4-05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO **REDUCE** ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<**http://www.uspto.gov/ebc/efs/downloads/documents.htm**> , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):** U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED | **SUGGESTED CORRECTION** | **SERIAL NUMBER:** 09/910,354A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1____ Wrapped Nucleics / Wrapped Aminos — The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .); this will prevent "wrapping."

2____ Invalid Line Length — The rules require that a line not exceed 72 characters in length. This includes white spaces.

3____ Misaligned Amino Numbering — The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4____ Non-ASCII — The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5____ Variable Length — Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing

6____ PatentIn 2.0 "bug" — A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7____ Skipped Sequences (OLD RULES) — Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO X (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION SEQ ID NO X (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES" response to include the skipped sequences.

8 Skipped Sequences (NEW RULES) — Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
<210> sequence id number
<400> sequence id number
000

9 Use of n's or Xaa's (NEW RULES) — Use of n's and/or Xaa's have been detected in the Sequence Listing
Per 1.823 of Sequence Rules, use of <220> <221> is MANDATORY if n's or Xaa's are present
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents

10 Invalid <213> Response — Per 1.823 of Sequence Rules, the only valid <213> responses are Unknown, Artificial Sequence or scientific name (Genus/species) <220> <223> section is required when <213> response is ~~Unknown~~ Artificial Sequence

11 Use of <220> — Sequence(s) ____ missing the <220> "feature" and associated numeric identifiers and responses
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12____ PatentIn 2.0 "bug" — Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13____ Misuse of n/Xaa — "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid

IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/910,354A

DATE: 03/04/2005
TIME: 14:13:10

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

see item # 10 on error sheet (pg. 1-4)

Does Not Comply
Corrected Diskette Needed

```
     3 <110> APPLICANT: Jarrell, et al.,
W--> 4 <120> TITLE OF INVENTION: Modular Vector Systems
     6 <130> FILE REFERENCE: 2003320-0032
     8 <140> CURRENT APPLICATION NUMBER: 09/910,354A
     9 <141> CURRENT FILING DATE: 2001-07-20
    11 <160> NUMBER OF SEQ ID NOS: 24
    13 <170> SOFTWARE: PatentIn version 3.2
    15 <210> SEQ ID NO: 1
    16 <211> LENGTH: 23
    17 <212> TYPE: DNA
    18 <213> ORGANISM: PCR primer EU-1 for amplification of a vector fragment containing
W--> 19 bacterical origin of replication, Lac I gene, and pT7 promoter.
    21 <400> SEQUENCE: 1
    22 cauggtatat ctccttctta aag
    25 <210> SEQ ID NO: 2
    26 <211> LENGTH: 22
    27 <212> TYPE: DNA
    28 <213> ORGANISM: PCR primer Eu-2 for amplification of a vector fragment containing
W--> 29 bacterial origin of replication, Lac I gene, and pT7 promoter.
    31 <400> SEQUENCE: 2
    32 cucatgacca aaatcccttа ac
    35 <210> SEQ ID NO: 3
    36 <211> LENGTH: 22
    37 <212> TYPE: DNA
    38 <213> ORGANISM: PCR primer EU-3 for amplification of a vector fragment containing Amp
W--> 39 gene.
    41 <400> SEQUENCE: 3
    42 gagattatca aaaaggatct tc
    45 <210> SEQ ID NO: 4
    46 <211> LENGTH: 20
    47 <212> TYPE: DNA
    48 <213> ORGANISM: PCR primer EU-4 for amplification of a vector fragment containing Amp
W--> 49 gene.
    51 <400> SEQUENCE: 4
    52 uaactagcat aacccctтgg
    55 <210> SEQ ID NO: 5
    56 <211> LENGTH: 21
    57 <212> TYPE: DNA
    58 <213> ORGANISM: PCR primer 5' Lac Z for amplification of an insert fragment containing
W--> 59 Lac Z gene.
    61 <400> SEQUENCE: 5
    62 augaccatga ttacgccaac g
    65 <210> SEQ ID NO: 6
```

Invalid response 23

Invalid response 22

Invalid response 22

Invalid response 20

Invalid response 21

FYI: The above responses can be inserted into section (2207-2223).

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:10

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

CS Amo errors

66 <211> LENGTH: 22
67 <212> TYPE: DNA
68 <213> ORGANISM: PCR primer 3' Lac Z for amplification of an insert fragment containing
W--> 69 Lac Z gene.
71 <400> SEQUENCE: 6
72 uuacaatttc cattcgccat tc 22
75 <210> SEQ ID NO: 7
76 <211> LENGTH: 37
77 <212> TYPE: DNA
78 <213> ORGANISM: PCR primer 5' OST for amplifying an Ori fragment from pET 19 b.
80 <400> SEQUENCE: 7
81 ctgctaagtg agcucgacag atcgctgaga taggtgc 37
84 <210> SEQ ID NO: 8
85 <211> LENGTH: 36
86 <212> TYPE: DNA
87 <213> ORGANISM: PCR primer 1N 3' Ori(s) for amplifying an Ori fragment from pET 19b.
89 <400> SEQUENCE: 8
90 aagcttgcta agtagggcgt ttttccatag gctccg 36
93 <210> SEQ ID NO: 9
94 <211> LENGTH: 36
95 <212> TYPE: DNA
96 <213> ORGANISM: PCR primer 1NT5'KAN for amplifying a fragment containing the kanamycin
W--> 97 resistance gene from pCR2.1 topo.
99 <400> SEQUENCE: 9
100 ctacctagca agctuctatc tggacaaggg aaaacg 36
103 <210> SEQ ID NO: 10
104 <211> LENGTH: 41
105 <212> TYPE: DNA
106 <213> ORGANISM: PCR primer T73' KAN for amplifying a fragment containing the
kanamycin
W--> 107 resistance gene from pCR2.1 topo.
109 <400> SEQUENCE: 10
110 ccctatagtg agtcgtatta aggcgaaaac tctcaaggat c 41
113 <210> SEQ ID NO: 11
114 <211> LENGTH: 42
115 <212> TYPE: DNA
116 <213> ORGANISM: PCR primer tcs1 for amplifying a fragment containing the luciferase
gene
W--> 117 from pGl II basic.
119 <400> SEQUENCE: 11
120 ttaatacgac tcactatagg gatggaagac gccaaaaaca ta 42
123 <210> SEQ ID NO: 12
124 <211> LENGTH: 36
125 <212> TYPE: DNA
126 <213> ORGANISM: PCR primer tc58 for amplifying a fragment containing the luciferase
gene
W--> 127 from pGl II basic.
129 <400> SEQUENCE: 12
130 gagctcactt agcagttaca atttggactt tccgcc 36
133 <210> SEQ ID NO: 13
134 <211> LENGTH: 36
135 <212> TYPE: DNA

↑ see item # 10 on error summary sheet

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: **US/09/910,354A** TIME: 14:13:10

Input Set : **A:\pto.da.txt**
Output Set: ~~**N:\CRF4\03032005\I910354A.raw**~~

136 <213> ORGANISM: PCR primer 1NT 5'KAN for amplifying a fragment containing the kanamycin
W--> **137 resistance gene from pCR 2.1 topo.**
139 <400> SEQUENCE: 13
140 ctacctagca agctuctatc tggacaaggg aaaacg 36
143 <210> SEQ ID NO: 14
144 <211> LENGTH: 33
145 <212> TYPE: DNA
146 <213> ORGANISM: PCR primer 1NT 3'KAN for amplifying a fragment containing the kanamycin
W--> **147 resistance gene from pCR 2.1 topo.**
149 <400> SEQUENCE: 14
150 gagctcactt agcaaggcga aaactctcaa gga 33
153 <210> SEQ ID NO: 15
154 <211> LENGTH: 37
155 <212> TYPE: DNA
156 <213> ORGANISM: PCR primer 1NT5' Ori for amplifying a fragment containing the Ori from
W--> **157 pET 19b.**
159 <400> SEQUENCE: 15
160 ttgctaagtg agcucgacag atcgctgaga taggtgc 37
163 <210> SEQ ID NO: 16
164 <211> LENGTH: 36
165 <212> TYPE: DNA
166 <213> ORGANISM: PCR primer 1N3'Ori(s) for amplifying a fragment containing the Ori from
W--> **167 pET 19b**
169 <400> SEQUENCE: 16
170 aagcttgcta agtagggcgt ttttccatag gctccg 36
173 <210> SEQ ID NO: 17
174 <211> LENGTH: 37
175 <212> TYPE: DNA
176 <213> ORGANISM: PCR primer 3nt 5'OST for amplifying an Ori fragment.
178 <400> SEQUENCE: 17
179 ctgctaagtg agcucgacag atcgctgaga taggtgc 37
182 <210> SEQ ID NO: 18
183 <211> LENGTH: 36
184 <212> TYPE: DNA
185 <213> ORGANISM: PCR primer 3nt 5'OST for amplfiying an Ori fragment.
187 <400> SEQUENCE: 18
188 aagcttgcta gguaggctac gtcttgctgg cgttcg 36
191 <210> SEQ ID NO: 19
192 <211> LENGTH: 36
193 <212> TYPE: DNA
194 <213> ORGANISM: PCR primer 3nt 5'KHT for amplifiying a KAN fragment.
196 <400> SEQUENCE: 19
197 ctacctagca agcuuctatc tggacaaggg aaaacg 36
200 <210> SEQ ID NO: 20
201 <211> LENGTH: 35
202 <212> TYPE: DNA
203 <213> ORGANISM: PCR primer 3nt 3'KST for amplifying an Ori(s) fragment.
205 <400> SEQUENCE: 20
206 gagctcactt agcagggcga aaactctcaa ggatc 35

d's AMP errors

↑ see item #10 on error summary sheet.

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: **US/09/910,354A** TIME: 14:13:10

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\03032005\I910354A.raw**

same errors

209 <210> SEQ ID NO: 21
210 <211> LENGTH: 37
211 <212> TYPE: DNA
212 <213> ORGANISM: PCR primer 1NT 5'ORI for amplifying an Ori(s) fragment.
214 <400> SEQUENCE: 21
215 ttgctaagtg agctcgacag atcgctgaga taggtgc 37
218 <210> SEQ ID NO: 22
219 <211> LENGTH: 36
220 <212> TYPE: DNA
221 <213> ORGANISM: PCR primer 1NT3' Ori(s) for amplifying an Ori(s) fragment.
223 <400> SEQUENCE: 22
224 aagcttgcta ggtagggcgt ttttccatag gctccg 36
227 <210> SEQ ID NO: 23
228 <211> LENGTH: 36
229 <212> TYPE: DNA
230 <213> ORGANISM: PCR primer 1NT 5'KAN for amplifying an KAN fragment.
232 <400> SEQUENCE: 23
233 ctacctagca agctuctatc tggacaaggg aaaacg 36
236 <210> SEQ ID NO: 24
237 <211> LENGTH: 33
238 <212> TYPE: DNA
239 <213> ORGANISM: PCR primer 1NT3'KAN for amplifying an Ori(s).
241 <400> SEQUENCE: 24
242 gagctcactt agcaaggcga aaactctcaa gga 33

↑ see item #10 on error summary sheet

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/04/2005
PATENT APPLICATION: **US/09/910,354A** TIME: 14:13:11

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\03032005\I910354A.raw**

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:11; Line(s) 116
Seq#:12; Line(s) 126

VERIFICATION SUMMARY DATE: 03/04/2005
PATENT APPLICATION: **US/09/910,354A** TIME: 14:13:11

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\03032005\I910354A.raw**

L:4 M:283 W: Missing Blank Line separator, <120> field identifier
L:19 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:29 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:39 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:49 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:59 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:69 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:97 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:107 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:117 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:127 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:137 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:147 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:157 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:167 M:259 W: Allowed number of lines exceeded, <213> ORGANISM: